



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,694	08/13/2001	Akiyuki Harada	4229	8866

21553 7590 05/21/2004

FASSE PATENT ATTORNEYS, P.A.  
P.O. BOX 726  
HAMPDEN, ME 04444-0726

EXAMINER
----------

NGUYEN, JIMMY T

ART UNIT	PAPER NUMBER
----------	--------------

3725

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/929,694

Applicant(s)

HARADA ET AL.

Examiner

Jimmy T Nguyen

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, and 12-17 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/26/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

Applicant's election without traverse of Group I, claims 1, 2, and 12, in Paper filed on April 26, 2004 is acknowledged. The non-elected claims 3-11 have been revised to depend upon the elected claims. Claims 3-6 have been amended to depend from elected claim 1. Claims 7-11 have been canceled, while corresponding new claims 13-17 depend upon elected claim 12. Claims 3-6 and 13-17 have been reconsidered and rejoined with elected claims 1, 2, and 12.

An action on the merits of claims 1-6 and 12-17 follows.

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

Receipt is acknowledged of an Information Disclosure Statement (I.D.S.), filed 17 December 2002, which I.D.S. has been placed of record in the file. An initialed, signed and dated copy of the form PTO-1449 is attached to this Office action.

***Drawings***

The formal drawings filed on August 13, 2001 have been acknowledged and approved.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 13, line 1, "Th" should be changed to --- The ---.

Regarding claim 13, it is unclear of what structural interrelationships between the means as claimed (i.e. a sub-piston, supply control valve, all of the drive mechanisms, ..) and a piezoelectric as claimed in the preceding claim 12.

Regarding claim 14, there is no antecedent basis for "a respective said piezoelectric element" in the claim, as for only one piezoelectric element is being claimed in the preceding claim 12.

Regarding claim 17, the preamble of the claim needs to be consistent with its parent claim 13.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-4, 6, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Nippon Telegraph and Telephone (hereinafter "NTT") (JP 60 177897 A).**

Regarding claims 1-2 and 12, NTT discloses a method and an apparatus for pressing an object (21) with a main piston (2) placed in a main cylinder (16B) by means of applying and pressurizing (see fig. 3) a prescribed pressure to the main piston with working fluid (17), wherein the working fluid is compressed to the prescribed pressure by supplying the working fluid to the main cylinder with a driving power of a piezoelectric element (1). A prescribed voltage is applied to the piezoelectric element repeatedly until the pressure of the working fluid reaches to the prescribed pressure (page 10, first paragraph).

Regarding claims 3-4 and 6, NTT discloses a piping system (see fig. 3) that included the main cylinder (16B), a supply line (fluid supply in 16A), and a discharge line (19B); a check valve (14) for preventing a reverse flow of the working fluid from the main cylinder (fig. 6B) to the supply line; a detector (24a, 24b); and a sub-cylinder (16A). NTT discloses the first method step of displacing a sub-piston (12) as claimed (fig. 6C); a second method step of causing the sub-piston to return to an initial position (fig. 6D); and a step of repeating the first and the second steps (page 10, first paragraph). The first step is performed in a state where a discharge control valve (15) and a supply control valve (13) are closed (fig. 6C). The second step is performed in a state where the discharge control valve (15) and the check valve (14) are closed (fig. 6D).

#### ***Allowable Subject Matter***

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3725

Regarding claim 5, the following is a statement of reasons for the indication of allowable subject matter: The art of record, considered alone or in combination, neither anticipates nor renders obvious a method for pressing an objected, wherein *a supply control valve having a piezoelectric element attached thereto*, in combination with the rest of the claimed limitations.

Note that claims 13-17 have not been rejected over prior art. However, in view of the issues under 35 USC 112 rejections as set forth above, the allowability of the claims can not be determined at this time.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art listed on the attached PTO 892 are cited to show relevant pressing apparatus utilizing piezoelectric element.

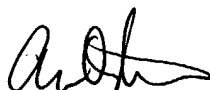
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy T Nguyen whose telephone number is (703) 305-5304. The examiner can normally be reached on Mon-Thur 8:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allen Ostrager can be reached on (703) 308-3136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTNguyen  
May 10, 2004



ALLEN OSTRAGER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700